

Interactive comment on “Distinctive effects of allochthonous and autochthonous organic matter on CDOM spectra in a tropical lake” by Luciana Pena Mello Brandão et al.

Anonymous Referee #3

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The authors report on a series of mesocosm experiments in a tropical lake in Brazil where they have investigated the spectral properties of allochthonous and autochthonous organic matter (CDOM). Since previous studies have mainly focused on fresh water systems in temperate environments, the current study intends to close this gap in limnological research. The main finding of this study is a surprisingly pronounced sensitivity of the composition of CDOM in a tropical lake on artificial alterations in environmental parameters which can be used to monitor anthropogenic interventions by changes in land use and climate conditions.

This is a revised version of a previous manuscript which has improved considerably.

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The authors have responded satisfactorily to the raised comments and criticisms of the two reviewers. Notably the introduction section was expanded with a stronger focus on the motivation of the present study.

Minor comment: In chapter “2.4 Data analysis” lines 178 to 180 you use a lot of acronyms which must be explained beforehand; i.e. NUT stands for nutrient addition or NUTSH stands for nutrient addition and shadowing experiments.

Save for that minor revisions I can recommend publication in BGS.

Interactive comment on Biogeosciences Discuss., <https://doi.org/10.5194/bg-2017-480>, 2018.

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